

7969-276

11/21/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

Craig D. Kleppe, Ph.D.
BASF Corporation
26 Davis Drive, PO Box 13528
Research Triangle Park, NC 27709

NOV 21 2012

Subject: Label amendment to add an additional dormant period application to stone, pome, citrus, and nut trees
Product Name: TREEVIX powered by KIXOR Herbicide
EPA Reg. No: 7969-276
Decision Number: 463663

Dear Dr. Kleppe:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. Please see the enclosed memorandum for more details.

One copy of master and supplemental labeling, stamped "Accepted" are enclosed for your records. Products released for shipment after 18 months from the date on this notice or the next printing of the label, whichever occurs first, must bear the new revised label. Per 40 CFR 156.10(6), submit one copy of your final printed labeling before you release the product for shipment. Amended labeling will supersede all previously accepted ones. If you have questions or concerns regarding this letter, please contact Beth Benbow at (703) 347-8072 or email at benbow.bethany@epa.gov.

Sincerely,

Kathryn V. Montague
Product Manager 23
Herbicide Branch
Registration Division (7505P)

FIRST AID	
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • DO NOT induce vomiting unless told to do so by a poison control center or doctor. • DO NOT give any liquid to the person. • DO NOT give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> • Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOTLINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information at 1-800-832-HELP (4357).</p>	

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Harmful if absorbed through skin. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing.

Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below. For more options, refer to **Category A** on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- Protective eyewear such as face shield, goggles, or safety glasses
- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves (such as natural rubber, selection **Category A**)

Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

Engineering Controls Statement

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for **applicators and other handlers**

and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

For terrestrial uses, **DO NOT** apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

Groundwater Advisory. Saflufenacil has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory. Saflufenacil may impact surface water due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several weeks after application. A level, well-maintained buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of this chemical from runoff water and sediment. Runoff of this product will be reduced by avoiding application when rainfall is forecast to occur within 48 hours.

Endangered Species Protection Requirements

This product may have effects on federally listed threatened or endangered plant species or their critical habitat. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult <http://www.epa.gov/espp/>, or call 1-800-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months prior to their effective dates.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at time of herbicide application.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Observe all precautions and limitations in this label and the labels of products used in combination with **Treevix™ herbicide**. The use of **Treevix** not consistent with this label can result in injury to crops, animals or persons. Keep containers closed to avoid spills and contamination.

Unless otherwise directed in supplemental labeling, all applicable directions, restrictions, precautions and **Conditions of Sale and Warranty** are to be followed.

BASF Corporation does not recommend or authorize the use of this product in manufacturing, processing or preparing custom blends with other products for application in crops.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

EXCEPTION: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves such as natural rubber ≥ 14 mils
- Shoes plus socks
- Protective eyewear

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STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage

Store in original container only, in cool, dry, and well-ventilated area, separately from fertilizer, feed, or foodstuffs and away from other pesticides. **DO NOT** store this product under wet conditions. Avoid cross-contamination with other pesticides.

Pesticide Disposal

Wastes resulting from this product may be disposed of on-site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

In Case of Emergency

In case of large-scale spillage regarding this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

Steps to be taken in case material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing, and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

Product Information

Treevix™ herbicide provides contact burndown broadleaf weed control (refer to **Table 1** for weeds controlled).

Treevix does not control grass weeds and must be used sequentially or tank mixed with a grass herbicide for a complete weed control program. Refer to **Crop-specific Information** section for recommendations on herbicide tank mixtures or sequential programs.

Make burndown applications of **Treevix** when broadleaf weeds are small and actively growing. Burndown activity may be reduced on weeds previously mowed or cut. An adjuvant is required with **Treevix** for optimum burndown activity (refer to **Additives** section for details). Burndown activity may be slowed or reduced under cloudy and/or foggy or cooler weather conditions, or when weeds are growing under drought or other stress conditions. When targeting dense weed populations and/or larger broadleaf weeds, use a higher application rate within an application rate range and/or higher spray volumes. Angling nozzles forward (to 45 degrees) may improve penetration of denser weed canopies.

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Table 1. Broadleaf Weeds Controlled by a Burndown Application of Treevix™ herbicide

Common Name	Scientific Name	Maximum Height or Diameter	
		C = Control S = Suppression	(inches) etc.
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C	6
Amaranth, Powell	<i>Amaranthus powellii</i>	C	6
Bedstraw, catchweed	<i>Galium aparine</i>	C	3
Beggarticks, hairy	<i>Bidens pilosa</i>	C	6
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C	6
Bindweed, field	<i>Convolvulus arvensis</i>	S	6
Buckwheat, wild	<i>Polygonum convolvulus</i>	C	6
Canola, volunteer (rapeseed)	<i>Brassica</i> spp.	C	6
Carpetweed	<i>Mollugo verticillata</i>	C	6
Chickweed, common	<i>Stellaria media</i>	S	3
Cocklebur, common	<i>Xanthium strumarium</i>	C	6
Cowcockle	<i>Vaccaria pyramidata</i>	C	4
Dandelion	<i>Taraxacum officinale</i>	S	6
Eveningprimrose, cutleaf	<i>Oenothera laciniata</i>	S	4
Falseflax, smallseed	<i>Camelina microcarpa</i>	C	4
Filaree, broadleaf	<i>Erodium botrys</i>	C	4
Filaree, redstem	<i>Erodium cicutarium</i>	S	3
Filaree, whitestem	<i>Erodium moschatum</i>	C	4
Fleabane, hairy	<i>Conyza bonariensis</i>	S	4 rosette
Flixweed	<i>Descurainia sophia</i>	C	6
Goosefoot, nettleleaf	<i>Chenopodium murale</i>	C	3
Groundcherry, cutleaf	<i>Physalis angulata</i>	C	6
Groundsel, common	<i>Senecio vulgaris</i>	S	4
Henbit	<i>Lamium amplexicaule</i>	S	3
Horseweed (maretail)	<i>Conyza canadensis</i>	C	4
Knotweed, prostrate	<i>Polygonum aviculare</i>	S	3
Kochia	<i>Kochia scoparia</i>	C	1 to 3 Suppression of button/puffball stage at < 1-inch tall
Ladysthumb	<i>Polygonum persicaria</i>	C	6
Lambsquarters, common	<i>Chenopodium album</i>	C	6
Lambsquarters, narrowleaf	<i>Chenopodium pratericola</i>	C	6
Lettuce, miner's	<i>Claytonia perfoliata</i>	C	6
Lettuce, prickly	<i>Lactuca scariola</i>	C	6 rosette
Mallow, common	<i>Malva neglecta</i>	C	6
Mallow, little ³ (cheeseweed)	<i>Malva parviflora</i>	C	3
Mallow, Venice	<i>Hibiscus trionum</i>	C	6
Maretail (horseweed)	<i>Conyza canadensis</i>	C	4
Morningglory, entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>	C	6
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>	C	6
Morningglory, palmleaf	<i>Ipomoea wrightii</i>	C	6
Morningglory, pitted	<i>Ipomoea lacunosa</i>	C	6
Morningglory, tall	<i>Ipomoea purpurea</i>	C	6
Mustard, black	<i>Brassica nigra</i>	C	6 rosette
Mustard, tumble	<i>Sisymbrium altissimum</i>	C	6 rosette
Mustard, wild	<i>Sinapis arvensis</i>	C	6 rosette
Needles, Spanish	<i>Bidens pilosa</i>	C	6
Nettle, burning	<i>Urtica urens</i>	C	4
Nightshade, black	<i>Solanum nigrum</i>	C	6
Nightshade, cutleaf	<i>Solanum triflorum</i>	C	6
Nightshade, Eastern black	<i>Solanum ptycanthum</i>	C	6
Nightshade, hairy	<i>Solanum saccharoides</i>	C	6
Parthenium	<i>Parthenium hysterophorus</i> L.	C	6
Pennycress, field	<i>Thlaspi arvense</i>	C	6
Pigweed, prostrate	<i>Amaranthus blitoides</i>	C	6

Table 1. Broadleaf Weeds Controlled by a Burndown Application of Treevix™ herbicide (continued)

Common Name	Scientific Name	C = Control S = Suppression	Maximum Height or
			Diameter (inches) ^{1,2,3}
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C	6
Pigweed, smooth	<i>Amaranthus hybridus</i>	C	6
Puncturevine	<i>Tribulus terrestris</i>	C	6
Purslane, common	<i>Portulaca oleracea</i>	C	3
Pusley, Florida	<i>Richardia scabra</i>	S	3
Ragweed, common ²	<i>Ambrosia artemisiifolia</i>	C	6
Ragweed, giant	<i>Ambrosia trifida</i>	C	6
Rocket, London	<i>Sisymbrium irio</i>	C	6
Sesbania, hemp	<i>Sesbania exaltata</i>	C	4
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C	6
Sida, prickly	<i>Sida spinosa</i>	C	6
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	C	6
Sowthistle, annual	<i>Sonchus oleraceus</i>	C	6 rosette
Sowthistle, spiny	<i>Sonchus asper</i>	C	6 rosette
Spurge, garden	<i>Chamaesyce hirta</i>	C	6
Spurge, prostrate	<i>Chamaesyce humistrata</i>	C	6
Spurge, spotted	<i>Chamaesyce maculata</i>	C	6
Sunflower, common	<i>Helianthus annuus</i>	C	6
Tansymustard, green	<i>Descurainia incana</i>	C	6
Tansymustard, pinnate	<i>Descurainia pinnata</i>	C	6
Thistle, Canada	<i>Cirsium arvense</i>	S ¹	6
Thistle, Russian	<i>Salsola kali</i>	C	3
Velvetleaf	<i>Abutilon theophrasti</i>	C	6
Waterhemp ²	<i>Amaranthus tuberculatus</i>	C	6
Willowweed	<i>Epilobium adenocaulon</i>	C	3

¹ Control of seedling stage and suppression of perennial growth stage.

² Populations of noted weeds exist that are known to be resistant to burndown applications of **Group 14/Group E** herbicides and will not be controlled by herbicides like **Treevix**. See the **Resistance Management** section for practices to manage and minimize the impact of resistant weeds (e.g. tank mixes or alternation with other herbicide modes of action, crop rotation and mechanical control).

³ Burndown activity may be slowed or reduced under cloudy and/or foggy or cooler weather conditions.

Table 2. Additional Broadleaf Weeds Controlled by a Burndown Application of Treevix in Tank Mix with Other Herbicides¹

Common Name	Scientific Name	C = Control	Maximum Height or
			Diameter (inches)
Chickweed, common	<i>Stellaria media</i>	C	3
Filaree, redstem	<i>Erodium cicutarium</i>	C	3
Fleabane, hairy	<i>Coryza bonariensis</i>	C	4 rosette
Groundsel, common	<i>Senecio vulgaris</i>	C	4
Knotweed, prostrate	<i>Polygonum aviculare</i>	C	3

¹ To achieve control of these weeds, the tank mix of **Treevix** and glyphosate or glufosinate is required. Refer to glyphosate or glufosinate labels for specific use rates.

Mode of Action

Treevix is a potent inhibitor of protoporphyrinogen-oxidase belonging to herbicide mode of action

Group 14 (WSSA)/Group E (HRAC). **Treevix** is rapidly absorbed by roots and foliage. Following inhibition of protoporphyrinogen-oxidase, plant death is the result of membrane damage. Under active growing conditions, susceptible emerged weeds usually develop chlorotic and necrotic injury symptoms within hours and die within a few days.

Resistance Management

While weed resistance to protoporphyrinogen-oxidase inhibiting herbicides is relatively infrequent, populations of resistant biotypes are known to exist. Resistance management practices include:

1. Following labeled application rate and weed growth stage recommendations
2. Avoiding repeated applications of herbicides with the same mode of action
3. Utilizing tank mixes and sequential applications with other effective herbicides possessing different modes of action

- Using crop rotation so that crop competition, tillage or herbicides with alternative modes of action can be used to control weed escapes

Crop Tolerance

Citrus fruit trees, grape vines, nut trees, pome fruit trees, and stone fruit trees are tolerant to **Treevix™ herbicide** applied according to label directions as a postemergence-directed treatment and under normal environmental conditions. Crop injury may occur under stressful growing conditions (e.g. seedling disease, extreme hot or cold weather, excessive moisture, high soil pH, high soil salt concentration, or drought).

Severe crop injury will result if **Treevix** is applied postemergence (over the top) to any tree or vine crop.

Application Instructions

Treevix must be applied as a postemergence-directed spray application either as a uniform broadcast, banded, or spot application to emerged broadleaf weeds.

Application Methods and Equipment

Treevix can **ONLY** be applied using ground equipment. Good spray coverage is important for optimum broadleaf weed control and can be improved with proper adjuvant, nozzle, and spray volume selection.

Use and configure application equipment to provide an adequate spray volume, an accurate and uniform distribution of spray droplets over the treated area, and to avoid spray drift to nontarget areas. Equipment should be adjusted to maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will increase rates above the use rates specified in this label. **DO NOT** apply broadcast or banded using high pressure hand wands.

Ground Application Requirements

Water Volume. As a water-dispersible granule formulation, **Treevix** must **ONLY** be applied using water as the spray carrier. Use 10 or more gallons of water per acre. Increased efficacy has been observed at water volumes of 20 to 40 gallons per acre. Thorough spray coverage is required for control of emerged broadleaf weeds. High populations and/or variations in size can prevent adequate spray coverage. Controlling fall-germinated weeds in the spring (e.g. horseweed/marestail) will also require thorough spray coverage. Use higher spray volumes (e.g. 15 to 20 gallons of water per acre) in these situations to increase spray coverage and optimize burndown activity.

The following measures must be followed to reduce the potential of spray drift to nontarget areas from ground applications:

- Apply this product using nozzles which deliver **medium-to-coarse spray droplets** as defined by ASAE standard S-572 and as shown in nozzle manufacturer's catalogs. Flat-fan nozzles are recommended for burndown applications. Nozzles that deliver coarse spray

droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain coverage of target (i.e. weeds). **DO NOT** use nozzles that produce fine (e.g. cone) spray droplets. Nozzles must be affixed to spray no higher than 20 inches above spray target (e.g. top of weed foliage).

- Apply this product only when the potential for drift to adjacent nontarget areas is minimal (e.g. when the wind is **10 MPH or less and is blowing away** from sensitive areas). **DO NOT** apply during periods of temperature inversions or stable atmospheric conditions.
- Avoid potential adverse effects to nontarget areas by maintaining a (50)* foot buffer between the application area and the **closest downwind edge** of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas, shrub lands, and crop lands).

*The buffer zone size is determined by use rate. Refer to the table below for the minimum buffer zone distance required for the intended use rate. Utilize the appropriate buffer zone distance from the table below in the buffer zone statement above.

NOTE: This footnote and table will only appear on master label. It will be removed from the final print container label after the appropriate buffer zone distance is selected.

Treevix Use Rate (ozs/A)	Saflufenacil Use Rate (lb ai/A)	Saflufenacil Use Rate (g ai/ha)	Buffer Zone Distance (feet)
0.5	0.022	25	13
0.75	0.034	38	20
1.0	0.045	50	33
2.0	0.089	100	50

Cleaning Spray Equipment

Before applying **Treevix**, all application equipment must be thoroughly cleaned. All spray equipment, hoses, and nozzles must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply **Treevix**.

Spray equipment used to apply **Treevix** should not be used to apply other materials to any crop unless the proper cleanout procedures are followed. Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions, followed by triple rinsing the equipment after applying this product.

Spray Drift Management

It is the responsibility of the applicator to avoid spray drift at the application site, especially onto nontarget areas. The interaction of many equipment-related and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The applicator should be familiar with and take into account the information covered in the following spray drift reduction advisory information.

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Controlling Droplet Size. The most effective way to reduce drift potential is to apply the largest droplets that provide sufficient coverage and control.

Volume. Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure. DO NOT exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles. Use the minimum number of nozzles that provide uniform coverage.

Nozzle Type. Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets.

Swath Adjustment. When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment (e.g. ground) upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller droplets, etc.).

Wind. Drift potential is lowest between wind speeds of 3 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. If applying at wind speeds less than 3 mph, the applicator must determine if:

1. Conditions of temperature inversion exist, or
2. Stable atmospheric conditions exist at or below nozzle height.

DO NOT make applications into areas of temperature inversions or stable atmospheric conditions.

NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Wind Erosion. Avoid treating powdery, dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.

Additives

For optimum burndown activity with **Treevix™ herbicide**, an adjuvant system must be used that includes the following:

Adjuvant	Rate
Methylated seed oil (MSO) ¹	1 gal/100 gals (1% v/v) ²
PLUS	PLUS
Ammonium sulfate (AMS)	8.5 to 17 lbs/100 gals (1% to 2% w/v)
or	or
Urea ammonium nitrate (UAN)	1.25 to 2.5 gals/100 gals (1.25% to 2.5% v/v)

¹ MSO-based adjuvant **MUST** contain at least 60% methylated seed oil. Poor performance may occur with adjuvants containing less than 60% methylated seed oil.

² **DO NOT** use less than 1 pint/A of MSO with low volume (< 12.5 gallons per acre) aerial or ground applications.

The use of AMS fertilizer is highly recommended when mixing **Treevix** with glyphosate-based herbicides.

DO NOT use a nonionic surfactant (NIS) as a substitute for MSO, or poor performance on broadleaf weeds will occur.

When an adjuvant is to be used with this product, BASF recommends the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant.

Tank Mixing Information

Treevix may be tank mixed with 1 or more registered herbicide products according to the specific tank mixing instructions in this label and respective product labels. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. The most restrictive labeling applies to tank mixes. Always follow the most restrictive label use directions. Refer to the **Crop-specific Information** section for details.

Tank mixtures with contact herbicides (e.g. carfentrazone, paraquat) may reduce the burndown activity of **Treevix**.

Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

1. For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
2. Add components in the sequence indicated in the following mixing order instructions using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.
3. Always cap the jar and invert 10 cycles between component additions.

4. When the components have all been added to the jar, let the solution stand for 15 minutes.
5. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, or fine particles that precipitate to the bottom, or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the ingredients in the same tank.

Mixing Order

1. **Water** - Fill tank 1/2 to 3/4 full of clean water and start agitation.
2. **Agitation** - Maintain agitation throughout mixing.
3. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
4. **Products in PVA bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. **Water-soluble additives** (including dry and liquid fertilizers such as ammonium sulfate or urea ammonium nitrate)
6. **Water-dispersible products** (such as dry flowables, wettable powders, suspension concentrates or suspo-emulsions)
7. **Water-soluble products**
8. **Emulsifiable concentrates** (including methylated seed oil adjuvants)
9. **Remaining quantity of water**

Maintain agitation throughout application until spraying is completed. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

Use Precautions

- **Maximum seasonal use rate** - Refer to **Crop-specific Information** sections for maximum cropping seasonal application use rates per crop. A cropping season is defined as the period following harvest of the preceding crop through the harvest of the planned or current crop.
- **Rainfastness** - **Treevix™ herbicide** is rainfast 1 hour after application. Burndown activity may be reduced if rain or irrigation occurs within 1 hour of application.
- **DO NOT** apply **Treevix** by air.
- **DO NOT** contaminate irrigation ditches or water used for domestic purposes.
- **DO NOT** apply **Treevix** through any type of irrigation system (e.g. chemigation).
- **Treevix is not for sale, distribution, or use in Nassau and Suffolk counties in New York State.**

Crop Rotation and Emergency Replanting Intervals

If any labeled crop treated with **Treevix** is lost to adverse weather or for other reasons, the area treated may be replanted to citrus fruit trees 1 month after treatment and to nut trees, pome fruit trees, and stone fruit trees 3 months after treatment. Corn and small grains may be planted immediately after crop removal. Wait 9 months before planting any other crop. Be sure to determine the rotational crop interval for tank mix products and follow the most restrictive interval of all products applied.

Crop-specific Information

This section provides use directions for **Treevix** in specific crops. Be sure to read product information, mixing, application, weeds controlled, and adjuvant instructions in preceding sections of the label. Read and follow tank mix product labels for restrictions, precautions, instructions, and rotational crop restrictions.

Thorough spray coverage is required for control of emerged broadleaf weeds. High populations and/or variations in size can prevent adequate spray coverage. Controlling fall-germinated weeds in the spring (e.g. horseweed/marestail) will also require thorough spray coverage. Use higher spray volumes (e.g. 15 to 20 gallons of water per acre) in these situations to increase spray coverage and optimize burndown activity.

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Bearing and Nonbearing Fruit and Nut Trees

Treevix™ herbicide may be applied in the following individual bearing or nonbearing crops within the fruit tree and tree nut crop groupings:

Citrus Fruits	
Calamondin	Lime
Citrus citron	Mandarin (satsuma)
Clementine	Orange (sweet and sour)
Citrus hybrids	Pummelo
Grapefruit	Tangelo
Kumquat	Tangerine
Lemon	
Pome Fruits	
Apple	Pear
Crabapple	Pear, oriental
Loquat	Quince
Mayhaw	
Stone Fruits	
Apricot	Plum, chicksaw
Aprium	Plum, Damson
Cherry, sweet	Plum, Japanese
Cherry, tart	Plumcot
Nectarine*	Pluot
Peach*	Prune
Plum	
Tree Nuts	
Almond	Filbert (hazelnut)
Beechnut	Hickory nut
Brazil nut	Macadamia nut
Butternut	Pecan
Cashew	Pistachio
Chestnut	Walnut
Chinquapin	

* See **Crop-specific Restrictions and Limitations** for use precaution on nectarine and peach.

Application Method, Rates, and Timings

Apply **Treevix** at 0.5 to 1.0 oz/A (or 2.0 ozs/A as specified in the following **Enhanced Burndown Applications** sections) plus the recommended adjuvants (refer to **Additives** section for details) as a postemergence-directed spray application either as a uniform broadcast, or banded, or spot application directed at the base of the tree trunks while targeting emerged broadleaf weeds (refer to **Table 1** for weeds controlled). Spray contact of tree foliage, flowers, buds, or fruit either directly via improper nozzle orientation or indirectly via physical drift will result in crop injury. The use of shielded sprayers is highly recommended when applying in citrus trees with low hanging branches and fruit.

Applications can be made to newly planted or replacement citrus trees after irrigation or rainfall has settled the soil, while nut trees, pome fruit trees, and stone fruit trees must be established for at least 9 months prior to application.

Trunk shields should be used until adequate bark has formed to protect trees from potential herbicide injury (typically by 2 to 3 years after establishment).

Treevix may be applied either in a single application or sequentially up to 3 times per year. Sequential applications must be separated by at least 21 days.

Additional Dormant Period Application in Tree Nuts, Pome, and Stone Fruit Trees. **Treevix** may be applied sequentially up to four (4) times per year only if one or two of the applications occur during the dormant period of postharvest through winter dormancy. Apply **Treevix** at 1.0 oz/A per application during the period of postharvest through winter dormancy. In-season **Treevix** applications may begin in the spring when trees are in the bud-swell stage. A maximum of three (3) in-season **Treevix** applications are permitted (i.e. when trees are in bud-swell to crop harvest). Sequential applications must be separated by at least 21 days regardless of the time of year. **DO NOT** apply **Treevix** more than four (4) times per cropping season (i.e. if two (2) applications are made in the postharvest to winter dormancy period, then a maximum of only two (2) applications can be made in-season).

Additional Dormant Period Application in Citrus Trees. **Treevix** may be applied sequentially up to four (4) times per year only if one or two of the applications occur during the period of postharvest to the beginning of bloom. Apply **Treevix** at 1.0 oz/A per application during the period of postharvest until trees begin to bloom. **Treevix** applications may only resume after citrus trees have begun the fruiting stage. A maximum of three (3) **Treevix** applications are permitted while trees are in the fruiting stage until crop harvest. Sequential applications must be separated by at least 21 days regardless of the time of year. **DO NOT** apply **Treevix** more than four (4) times per cropping season (i.e. if two (2) applications are made in the postharvest period, then a maximum of only two (2) applications can be made during fruiting stage until crop harvest).

Enhanced Burndown Applications in Tree Nuts. In tree nuts, **Treevix** may be applied at 2.0 ozs/A any time after crop harvest in the fall until March 1 of the following year. The preharvest interval after the 2.0 ozs/A application for tree nuts is no less than 42 days. A sequential application of **Treevix** at 1.0 oz/A may then be applied but must follow the 2.0 ozs/A application by at least 42 days. The preharvest interval for the 1.0 oz/A application is the same as stated in the **Crop-specific Restrictions and Limitations** section for tree nuts.

Enhanced Burndown Applications in Citrus. In citrus, **Treevix** may be applied at 2.0 ozs/A for enhanced burndown of existing weeds. The preharvest interval after the 2.0 ozs/A application for citrus fruit is no less than 42 days. A sequential application of **Treevix** at 1.0 oz/A may then be applied but must follow the 2.0 ozs/A application by at least 42 days. The preharvest interval for the 1.0 oz/A application is the same as stated in the **Crop-specific Restrictions and Limitations** section for citrus fruit.

Spot Treatments. Consult the chart following for the amount of **Treevix™ herbicide** for making various gallons of spray mix to be used for spot treatments applied to actively growing broadleaf weeds and sizes referenced in **Table 1**. Spray thoroughly to wet the weed foliage but not to point of runoff. To maximize performance, refer to the **Additives** section for the recommended adjuvant and rate to be added to the spray mix. Each spray mix is equivalent to applying **Treevix** at a use rate of 1.0 oz/A in a spray volume of 100 gallons per acre. Applications of a spot spray mix should not be made to an equivalent area less than what is shown in the chart or exceed the equivalent broadcast rate of 1.0 oz/A. Spot treatments may be applied via an ATV-mounted (all-terrain vehicle-mounted) or tractor-mounted sprayer equipped for low-pressure hand wand applications. **DO NOT** apply spot treatments using high pressure hand wands.

Gallons Spray Mix	Spray Mix Treatment Area (sq ft)	Treevix (ozs)	Treevix (grams)
1.0	436	0.010	0.3
2.5	1,089	0.025	0.7
5.0	2,178	0.050	1.4
10.0	4,356	0.100	2.8
25.0	10,890	0.250	7.1

Crop-specific Restrictions and Limitations

- **DO NOT** apply more than 1.0 oz/A of **Treevix** in a single application for pome fruits and stone fruits. **DO NOT** apply more than 2.0 ozs/A of **Treevix** in citrus fruit or tree nuts in a single application.
- **DO NOT** apply more than a maximum cumulative amount of 3.0 ozs/A of **Treevix** per cropping season or more than a maximum cumulative amount of 4.0 ozs/A per cropping season when using the **Additional Dormant Period Applications**. **DO NOT** apply more than a maximum cumulative amount of 4.0 ozs/A of **Treevix** on an annual basis.
- **Treevix** may be applied up to 1.0 oz/A any time up to or on the day of tree fruit harvest.
- Wait at least 7 days after application of **Treevix** up to 1.0 oz/A before harvesting tree nuts.
- Wait at least 42 days after application of **Treevix** at 2.0 ozs/A before harvesting citrus fruit and tree nuts.
- **Use restriction on nectarines and peaches** - **DO NOT** apply **Treevix** to nectarines and peaches grown on sand, sandy loam or loamy sand soils with 2% organic matter (OM) or less. On all other soils, apply **Treevix** only to nectarines and peaches that have been established for at least 24 months prior to application. This restriction does not apply to nectarines and peaches grown in California.

- **California use restriction on nectarines and peaches** - Apply **Treevix** only once to nectarines and peaches grown in California. Apply **Treevix** at 1.0 oz/A only to trees in winter dormancy from October 1 to December 31. However, **DO NOT** apply **Treevix** if trees have green, actively growing leaves.
- **DO NOT** use in tree nurseries.

Tank Mixtures

Broad-spectrum postemergence control of additional annual and perennial weeds will usually require a tank mix with a herbicide such as glyphosate. **Treevix** may be tank mixed or applied sequentially with one or more; but not limited to, the following herbicide products for additional burndown or residual weed control:

- **Poast® herbicide/Poast Plus® herbicide**
- **Prowl® H₂O herbicide**
- **Rely® 200 herbicide**
- glyphosate (e.g. **Roundup® herbicide**)
- oxyfluorfen (e.g. **Goal® herbicide**)

Bearing and Nonbearing Grape Vineyards

Treevix may be applied in the bearing and nonbearing grape vineyards.

Application Method, Rates, and Timings

Apply **Treevix** at 0.50 oz/A plus the recommended adjuvants (refer to **Additives** section for details) as a postemergence-directed spray application either as a uniform broadcast, banded, or spot application to the vineyard floor as a directed treatment beneath the vines and/or in areas between rows while targeting emerged broadleaf weeds (refer to **Table 1** for weeds controlled). Spray contact of vine foliage, flowers, buds, or fruit either directly via improper nozzle orientation or indirectly via physical drift will result in crop injury, particularly at early stages of leaf development.

Treevix may be applied either in a single application or sequentially 3 times per year. Sequential applications must be separated by at least 21 days.

Vines must be established for at least 9 months prior to application. Trunk shields should be used until adequate bark has formed (typically until 3 years after establishment).

Spot Treatments. Consult the chart following for the amount of **Treevix** for making various gallons of spray mix to be used for spot treatments applied to actively growing broadleaf weeds and sizes referenced in **Table 1**. Spray thoroughly to wet the weed foliage but not to point of runoff. To maximize performance, refer to the **Additives** section for the recommended adjuvant and rate to be added to the spray mix. Each spray mix is equivalent to applying **Treevix** at a use rate of 1.0 oz/A in a spray volume of 100 gallons per acre. Applications of a spot spray mix should not be made to an equivalent area less than what is shown in the chart or exceed the equivalent broadcast rate of 1.0 oz/A. Spot treatments may be applied via

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The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

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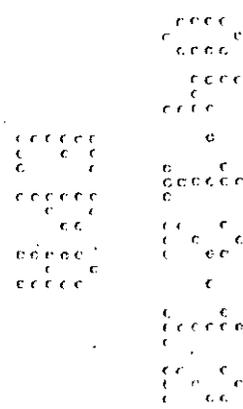
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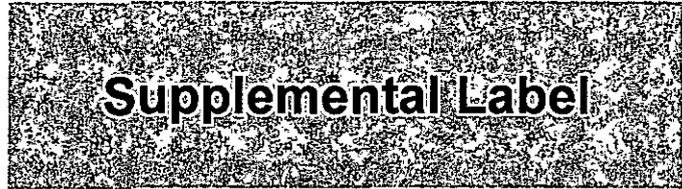
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NOV 21 2012

For the National Insecticide, Fungicide, and Herbicide Act, and the Pesticide Act

Group 14 Herbicide



7969-276
TREEVIX™
POWERED BY **KIXOR®** HERBICIDE

Additional Dormant Period Application in fruit and nut trees

This supplemental label expires October 31, 2015, and must not be used or distributed after this date.

Active Ingredient:

saflufenacil: N'-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-(trifluoromethyl)-3,6-dihydro-1(2H)-pyrimidinyl)benzoyl]-N-isopropyl-N-methylsulfamide.....	70.00%
Other Ingredients:.....	30.00%
Total:	100.00%

Contains 0.7 pound active ingredient saflufenacil per pound formulated as a water-dispersible granule (WG).

EPA Reg. No. 7969-276

Directions For Use

- It is a violation of federal law to use this product in a manner inconsistent with its labeling.
- The supplemental labeling and the entire **Treevix™ herbicide** container label, EPA Reg. No. 7969-276, must be in possession of the user at the time of application.
- Read the label affixed to the container for **Treevix** before applying.
- Use of **Treevix** according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for **Treevix**.

Application Method, Rates, and Timings

Apply **Treevix** at 1.0 oz/A during the dormant period of postharvest through winter dormancy in fruit and nut trees (as specified in the following **Additional Dormant Period Application** sections) plus the recommended adjuvants (refer to **Additives** section on main product container label for details). Apply as a postemergence-directed spray either as a uniform broadcast, or banded, or spot application directed at the base of the tree trunks while targeting emerged broadleaf weeds (refer to **Table 1** on main product container label for weeds controlled). Spray contact of tree foliage, flowers, buds, or fruit either directly via improper nozzle orientation or indirectly via physical drift will result in crop injury.

Additional Dormant Period Application in Tree Nuts, Pome, and Stone Fruit Trees

Treevix may be applied sequentially up to four (4) times per year only if one or two of the applications occur during the dormant period of postharvest through winter dormancy. Apply **Treevix** at 1.0 oz/A per application during the period of postharvest through winter dormancy. In-season **Treevix** applications may begin in the spring when trees are in the bud-swell stage. A maximum of three (3) in-season **Treevix** applications are permitted (i.e. when trees are in bud-swell to crop harvest). Sequential applications must be separated by at least 21 days regardless of the time of year. **DO NOT** apply **Treevix** more than four (4) times per cropping season (i.e. if two (2) applications are made in the postharvest to winter dormancy period, then a maximum of only two (2) applications can be made in-season).

Additional Dormant Period Application in Citrus Trees

Treevix may be applied sequentially up to four (4) times per year only if one or two of the applications occur during the period of postharvest to the beginning of bloom. Apply **Treevix** at 1.0 oz/A per application during the period of postharvest until trees begin to bloom. **Treevix** applications may only resume after citrus trees have begun the fruiting stage. A maximum of three (3) **Treevix** applications are

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permitted while trees are in the fruiting stage until crop harvest. Sequential applications must be separated by at least 21 days regardless of the time of year.

DO NOT apply **Treevix™ herbicide** more than four (4) times per cropping season (i.e. if two (2) applications are made in the postharvest period, then a maximum of only two (2) applications can be made during fruiting stage until crop harvest).

Crop-specific Restrictions and Limitations

- **DO NOT** apply more than 1.0 oz/A of **Treevix** in fruit trees or tree nuts in a single application.
- **DO NOT** apply more than a maximum cumulative amount of 3.0 ozs/A of **Treevix** per cropping season or more than a maximum cumulative amount of 4.0 ozs/A per cropping season when using the **Additional Dormant Period Applications**. **DO NOT** apply more than a maximum cumulative amount of 4.0 ozs/A of **Treevix** on an annual basis.
- **Treevix** may be applied any time up to or on the day of tree fruit harvest.
- Wait at least 7 days after application of **Treevix** before harvesting tree nuts.
- **DO NOT** use in tree nurseries.

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Conditions of Sale and Warranty

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Based on: NVA 2012-04-321-0068

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